AMENDMENTS TO THE CLAIMS

The following listing of claims, in which text to be added is underlined and text to be deleted is stricken through, will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (withdrawn) An expandable prosthesis placeable into a body lumen, comprising:

a support structure configured to engage the walls of the body lumen, the support structure having a cross-sectional profile that includes a first axis corresponding to and traversing a particular structural feature of the prosthesis configured to provide a function specific thereto; and

at least one imageable element located about the first axis, the at least one imageable element configured to facilitate visual identification of the rotational orientation of the first axis and the structural feature while the prosthesis is being imaged externally.

2. (withdrawn) The expandable prosthesis of claim 1, wherein the at least one imageable element comprises a radiopaque material.

3. (withdrawn) The expandable prosthesis of claim 2, wherein the at least one imageable element is attached about the support structure.

4. (withdrawn) The expandable prosthesis of claim 3 wherein the support structure includes at least one aperture, and wherein the at least one imageable element comprises a central portion and two terminal portions, the central portion traversing the at least one aperture with the terminal portions each having a diameter greater than that of the at least one aperture.

5. (withdrawn) The expandable prosthesis of claim 2, wherein the at least one imageable element comprise a cannula attached to the support structure.

6. (withdrawn) The expandable prosthesis of claim 2, wherein the at least one imageable element comprises a layer of material disposed on the support structure.

7. (withdrawn) The expandable prosthesis of claim 1, wherein the prosthesis comprises an artificial valve that opens and closes in response to fluid flowing therethrough.

8. (withdrawn) The expandable prosthesis of claim 7, wherein the artificial valve includes one or more leaflets that comprise a radiopaque material.

9. (withdrawn) The expandable prosthesis of claim 7, wherein the artificial valve includes a pair of opposing leaflets that define an orifice therethrough, the orifice including a first end and a second end.

10. (withdrawn) The expandable prosthesis of claim 9, wherein the at least one imageable element comprises a first radiopaque member located about the first end of the orifice, and a second radiopaque member located about the second end of the orifice.

11. (withdrawn) The expandable prosthesis of claim 1, wherein at the at least one imageable element comprises a portion of the support structure.

12. (withdrawn) The expandable prosthesis of claim 1, wherein the support structure comprises a plurality of struts, and wherein the at least one imageable element comprises one or more struts of the plurality of struts configured to

comprise a radiographic profile that is visually distinct from other ones of the plurality of struts not located about the first axis.

13. (withdrawn) The expandable prosthesis of claim 1, wherein the at least one imageable element comprises an ultrasonically reflective surface.

14. (withdrawn) The expandable prosthesis of claim 1, wherein the prosthesis includes a covering material attached to the support structure such that it forms an enclosure for the at least two imageable elements.

15. (withdrawn) The expandable prosthesis of claim 14, wherein the support structure comprises a frame having coiled bends with the at least one imageable element comprising a radiopaque element that is inserted into the coiled bends.

16. (withdrawn) The expandable prosthesis of claim 1, wherein the support structure includes a first end and a second end and a plurality of imageable elements configured to allow the first end being distinguished from the second end under the external imaging guidance.

17. (withdrawn) The expandable prosthesis of claim 1, wherein the at least one imageable element defines a first shape when viewed in a first profile and a second shape when viewed in a second profile different from the first profile, the first and second shapes being each being configured such that they are indicative of a particular orientation of the orifice of the valve to a viewer while under radiographic observation.

18. (withdrawn) An expandable prosthesis having a first end and a second end and being placeable into a body lumen, the prosthesis comprising:

a support structure configured to engage the walls of the body lumen, the support structure having a cross-sectional profile that includes a first axis

corresponding to and traversing a particular structural characteristic of the prosthesis configured to provide a function specific thereto; and

at least a first and a second radiopaque marker located about the first axis near the first end of the prosthesis, the first and second radiopaque markers configured to facilitate visual identification of the first axis and the orientation thereof to an anatomical feature of the body lumen while the prosthesis is being placed using external imaging guidance.

19. (withdrawn) The prosthesis of claim 18, further comprising a plurality of radiopaque markers situated about the second end of the prosthesis such that radiographic determination whether the prosthesis is deployed in a tilted configuration within the vessel can be made using external imaging guidance.

20. (withdrawn) A venous valve prosthesis having a first configuration for introduction through a blood vessel and a second configuration for implantation with the vessel, the venous valve prosthesis comprising:

a support structure configured to permit the prosthesis to engage the walls of a blood vessel;

a leaf structure configured to regulate the flow of blood therethrough, the leaf structure further defining an orifice; and

at least a first and a second imageable element positioned on the venous valve prosthesis and being configured such that the orientation of the orifice within the blood vessel is determinable radiographically while the prosthesis is in the first configuration.

21. (withdrawn) The venous valve prosthesis of claim 20, wherein the leaf structure comprises a first leaflet and an opposing second leaflet, each having an inner edge with a first end and a second end; the first imageable element being located about the first ends of the first and second leaflets and the second imageable element being located about the second ends of the first and second

imageable leaflets.

22. (withdrawn) The venous valve prosthesis of claim 20, wherein the leaf structure comprises a first leaflet and an opposing second leaflet, each having an inner edge, wherein the first imageable element is attached to the first leaflet about the inner edge thereof and the second imageable element is attached to the second leaflet about the inner edge thereof such that movement of the first and second leaflets is detectable under external imaging.

23. (withdrawn) The venous valve prosthesis of claim 21, wherein the first and second imageable elements comprise a radiographic material attached about the support structure of the venous valve prosthesis.

24. (withdrawn) A valve prosthesis, comprising:

a support structure configured to permit the valve prosthesis to engage the walls of a blood vessel;

a leaf structure configured to regulate the flow of blood therethrough, the leaf structure further defining an orifice; and

at least a first and a second imageable element attached about the leaflet structure and moveable therewith; and

wherein the imageable elements are position about the leaf structure such that the rotational orientation and functionality of the leaf structure can be determined using a method for external imaging.

25. (withdrawn) The valve prosthesis of claim 24, wherein the first and second imageable elements comprise radiopaque markers.

26. (withdrawn) An intraluminal prosthesis, comprising:

a support structure configured to engage the walls of a body lumen, the support structure having a substantially tubular shape and a passageway

extending therethrough;

a structural feature disposed about a first axis transecting the passageway of the prosthesis, the structural feature configured to provide a particular function that is different than that of the support structure; and

one or more radiopaque markers generally disposed about the first axis and indicating the orientation of the structural feature relative to the support structure.

27. (withdrawn) The intraluminal prosthesis of claim 26, wherein the structural feature comprises an valve orifice having a first end and a second end, the orifice configured to permit fluid flowing in a first direction through the passageway and restricting fluid flowing in a second direction opposite the first direction.

28. (withdrawn) The intraluminal prosthesis of claim 27, wherein the one or more radiopaque markers comprises a first and a second radiopaque marker disposed about the first and second ends of the valve orifice.

29. (withdrawn) The intraluminal prosthesis of claim 26, wherein the support structure includes a covering disposed thereabout and structural feature comprises an aperture traversing the covering.

30. (withdrawn) The intraluminal prosthesis of claim 29, further including a plurality of radiopaque markers disposed about the aperture.

31. (withdrawn) The intraluminal prosthesis of claim 26, wherein the prosthesis has a first passageway diameter associated with the first axis and a second passageway and second axis located 90.degree. with respect to the first axis, the structural feature comprising the first passageway diameter, the first passageway diameter being larger than the second passageway diameter such that the passageway comprises a generally elliptical cross-sectional shape, and wherein

the at least one radiopaque marker comprises a first and a second radiopaque marker placed opposite one across the passageway on one of the first axis and the second axis.

32. (withdrawn) The intraluminal prosthesis of claim 26, further comprising a delivery apparatus, wherein the prosthesis comprises a valve and the structural feature comprises an orifice of the valve.

33. (withdrawn) The intraluminal prosthesis of claim 32, wherein the at least one radiopaque marker is located about the orifice of the valve.

34. (withdrawn) The intraluminal prosthesis of claim 33, further comprising indicia disposed about at least one of the valve, the deliver system, or packaging material associated therewith, the indicia being indicative whether the valve is oriented within the delivery apparatus for delivery using an ascending approach or a descending approach.

35. (withdrawn) The intraluminal prosthesis of claim 32, wherein the valve further includes a loading member constraining the valve in a compressed state, the loading member and valve being insertable into the passageway of the delivery apparatus, the loading member being configured such that an operator can determine the orientation of the valve orifice during insertion of the valve into the passageway.

36. (canceled) A method of intravascular placement of a valve prosthesis at an implantation site, comprising the steps of:

determining the orientation of the valve orifice relative the valve support structure and the distal end of the delivery apparatus;

advancing the delivery apparatus and valve to the implantation site using an approach compatible with the orientation of the valve within the delivery

apparatus;

monitoring the location of the valve using an external imaging guidance system;

orienting the valve at the implantation site with the assistance of imageable structure located about the valve; and deploying the valve at the implantation site.

37. (currently amended) A method of verifying the orientation of a valve prosthesis within a delivery apparatus prior to introduction into a patient, comprising the steps of:

providing the valve prosthesis loaded within the delivery apparatus, the delivery apparatus having a proximal end and a distal end adapted for insertion into a body vessel of a patient, and the valve prosthesis having first and second ends, a leaflet structure defining an orifice at the first end and extending from the orifice toward the second end such that the leaflet structure is configured to catch retrograde blood flow, and an imageable structure comprising first and second imageable elements located about the orifice;

imaging the delivery apparatus and the valve prosthesis using an external imaging system to determine a location of the imageable structure relative to ~~at least one of the valve prosthesis and~~ the distal end of the delivery apparatus;

determining the orientation of the ~~orifice~~ valve prosthesis within the delivery apparatus relative to ~~at least one of the valve prosthesis and~~ the distal end of the delivery apparatus using the determined location of the imageable structure; and

verifying that the determined orientation of the ~~orifice~~ valve prosthesis is indicative of a delivery approach specified by indicia located on at least one of the delivery apparatus, the valve prosthesis, and the packaging material thereof;

wherein a determined orientation in which the orifice of the valve prosthesis is located closest to the distal end of the delivery apparatus such that the leaflet structure extends away from the orifice and away from the distal end of the

delivery device is indicative of an ascending delivery approach, and

wherein a determined orientation in which the second end of the valve prosthesis is located closest to the distal end of the delivery apparatus such that the leaflet structure extends away from the orifice and toward the distal end of the delivery device is indicative of a descending delivery approach.